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ABSTRACT

A study examined the effects of a remediation program initiated at Chauncey Rose Middle School, Terre Haute, Indiana, during the 1996-97 school year. After the ISTEP test was administered to the sixth-grade class, a pull-out program for remediation was started the following year using grant monies. Subjects were 14 sixth graders, selected because of low scores. The students in the remediation program received extra tutoring in language arts and math essential skills. Students in the remediation program were then given a local test in seventh grade. Results of the local test indicated that the remediation in language arts revealed little change in means. (Contains a table of data and seven references; appended is a graph of results.) (Author/CR)

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ED 420 061

Improving ISTEP Scores Through Remediation

An Evaluation of the Language Arts Remediation at Chauncey Rose Middle School, Vigo County School Corporation

by: Bryan E. Emmert

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Abstract

This article looks at the effects of a remediation program initiated at Chauncey Rose Middle School, Terre Haute, IN during the 1996-1997 school year. After the ISTEP test was administered to the sixth grade class, a pull-out program for remediation was started the following year using grant monies. The students in the remediation program received extra tutoring in Language Arts and Math essential skills. Students in the remediation program were then given a local test in seventh grade. The results of the local test concluded that the remediation in Language Arts revealed little change in means.

Background of the Problem

After the release of the results of the ISTEP scores of 1996, it was found that approximately one-third of Indiana students lack essential language and math skills (Wilhelmus, Huffman, 1996). To help those students reach the essential skills in Language Arts and Math, many schools started programs to remediate students in these areas. The Indiana Academic Standards for sixth graders in English is scaled at 480. It was estimated by the State Board of Education that 36% were below these standards (Wilhelmus, Huffman, 1996).

It was found that of all the sixth graders who took the ISTEP exam in the fall of 1996, only 62 percent performed above the Indiana Academic Standards in English and 62 percent performed above those same standards in Math. The percentage scoring **below** the Indiana Academic Standards in both English and Math was 37 leaving 1 percent undetermined (Wilhelmus, Huffman, 1996).

The mean for Reading on the 1995 ISTEP exam was 58.4 but the mean for Reading in 1996 was 56.9. The mean score for Language in 1995 was 60.7. The mean score for 1996 was 58.3 (Wilhelmus, Huffman, 1996). By comparing the mean scores (normal curve equivalent) we can see that sixth graders scored lower on the 1996 ISTEP exam. According to Dr. Suellen Reed, Superintendent of Public Instruction, these results may reflect the one-time changing from spring testing to fall testing (Wilhelmus, Huffman, 1996).

Remediation and enrichment courses were a way to educate those students who scored poorly on the ISTEP exam in Language Arts and Math. Scores on the 1996 exam for Chauncey Rose Middle School showed that many students needed more essential skills in the Reading and Language portion of the ISTEP. Normal curve equivalents for Chauncey Rose Middle School for the sixth graders of 1996 was 48.7 for Reading and the normal curve equivalents in Language Arts was 47.6. Although these scores are below the means for the entire state, Chauncey Rose did meet, and score higher, than their anticipated mean equivalents.

Grant money from the I Step Up Grant was used to hire three teachers at Chauncey Rose for remediation in Language Arts. Those students who were recognized as needing remedial skills in this area were selected using four items: ISTEP scores, teacher recommendation, current grades, and parent permission.

Remediation class sizes were to be limited to 12 students during any one period. The remediation program for Language Arts, ISTEP+ Remediation Program for Middle School Students, was designed to improve students reading, writing, and test taking ability. Items taught were spelling rules, punctuation rules, group and individual reading, and journal reflections (Vigo County School Corporation Curriculum, 1996).

Remediation teachers were given material and class space for the program on site in the schools. The estimated cost for the supplies was $7,320 dollars (Reed, 1996). Many of the students met with the remediation teacher during their Language Arts class time. If the schedule did not permit them to meet at that time, they would be pulled out of their related arts classes (Art, Music, Industrial Technology, Consumer Sciences).

Several other schools in the Terre Haute area started similar programs. Other schools in the Vigo County School Corporation who benefited from the I Step Up Grant were Deming Elementary, Warren Elementary, West Vigo Elementary, and West Vigo Middle School (Director Secondary Ed., 1996). In Shelbyville, Indiana, an after school program was set up for enrichment and remediation for students who scored poorly on the ISTEP. This program was used in place of summer school for those students in need of essential skills remediation (McNeil, 1997)

A 1993 study examined remedial arrangements offered in various middle schools. These arrangements covered multiple options within the school day (pull out programs and extra classes), before and after school opportunities, including extra homework in the evening, and extended programs such as Saturday classes and summer school (Dickinson, 1996). The most widely used program for Chauncey Rose Middle School was the pull out program during school.

The remediation of Language Arts skills took place throughout the 1996-1997 school year. One thing that conflicted with the remediation program at Chauncey Rose was the lack of training given to the teachers of remediation. Materials, books, and supplies were abundant for the classes, but the teachers lacked in using those supplies to their potential.

The basis of this study was to determine the effectiveness of the remediation program at Chauncey Rose Middle School. During the first nine weeks of the 1997-1998 school year, Chauncey Rose seventh graders took a local test equivalent to the sixth grade ISTEP in Language Arts and Mathematics. If the remediation program at Chauncey Rose Middle School was successful, then those students in the remediation class should score equal to, or higher, than their sixth grade ISTEP scores.

Statement of the Problem

The purpose of the study was to investigate the scores of those students in the remediation program using their sixth grade ISTEP scores and scores off the local seventh grade test. Although the local test did test material pertinent to seventh grade Language Arts, the test did offer questions equal to those of the sixth grade ISTEP exam.

Did remediation in sixth grade over Language Arts skills improve test scores for the local test? Dickinson states that given the range of remedial arrangements reported by middle level school in his study, it is easy to see that middle school is known as the school that is most sensitive to learner needs (Dickinson, 1996). Did Chauncey Rose meet the needs of the students in the remediation class?

The problem seen at Chauncey Rose was the number of students scoring below the National Mean (50) in Language Arts on the ISTEP exam in sixth grade. Many could say that this could be a direct result of the learning of skills in elementary. The remediation program sought out those students to improve their skills in Language Arts so to improve their scores on the ISTEP exam given in eighth grade.

The pull out program started at Chauncey Rose was unique for their needs. The hiring of the additional three teachers for remediation gave those students in the program a more one-on-one approach in reviewing essential skills in Language Arts. Many of the students also engaged in enrichment activities in the team based guidance (TBG) period at Chauncey Rose.

One day a week, students in their last period of the day, TBG, reviewed skills in Language Arts and Mathematics. Worksheets, math problems, and problems in language arts were given to the students as in class homework. The core teams in sixth grade, seventh grade, and eighth grade reviewed the work and gave attention to those students lacking in skills during homeroom time.

The study focused on the effectiveness of the remediation program, specifically, the study investigated the following hypothesis:

There is a significant relationship between the ISTEP Language Arts scores and the local test scores after remediation.

Methodology

The experimental group consisted of fourteen sixth graders (eight boys and six girls) who participated in the Chauncey Rose Middle School remediation of Language Arts after results of the ISTEP exam were returned. All fourteen were selected because of low scores in English and Reading on the ISTEP exam.

Remediation in Language Arts continued throughout the rest of the fourteen students sixth grade school year. When returning to classes the Fall of 1997, all seventh graders took an exam in Language Arts and Mathematics for enrichment scores and proficiency. That test will be called the Local Seventh Grade Exam.

Pre-test (ISTEP) and post-test (local exam) scores were compared to determine if the tests had any relationship in results and to determine the effectiveness of the remediation program of the sixth graders in Language Arts. It should be stated that the local test scores will also be used as a pre-test for seventh grade Math and Language Arts for the Chauncey Rose Seventh Grade Team.

Scores used from the ISTEP were the NCE (Normal Curve Equivalents). Scores used from the local exam were z-scores and calculated NCE's. Tests administered on the scores were Pearson Correlation Coefficients for relationships between ISTEP NCE's and local exams-scores. A paired t-test was administered on NCE's of both exams for significance.

Results

The pre-test ISTEP Language and Reading Normal Curve Equivalents (NCE) established the students for remediation. On Table 1, those NCE scores are given under ISTEP Scores. All of the students, except for three, scored under the standard mean of 50. The lowest mean for the students in remediation was 25 and highest was 57. The average mean for the remediation students in Language Arts and Reading on the ISTEP was 41.

The post-test scores for the local exam are given as z-scores on Table 1. The Pearson Correlation Coefficient test was used to determine the relationship of the ISTEP and local exams. It was found that the exam scores were highly related for all fourteen students.

The z-scores were also calculated into NCE scores. Those are given on Table 1 as Local NCE. The average mean for the local exam for the fourteen remediation students was 40.5. After a paired t-test analysis, it was found that there were no significant change in NCE scores at the .01, or .05 level.

ISTEP NCE scores and Local NCE scores are represented on the graph in the Appendix section. Represented in graph form, the scores are related in all but three students. Students two and ten scored very high on the ISTEP, but poorly on the local exam. Student eleven, scored just below average on the ISTEP exam, but very high on the local exam.

Table 1

ISTEP SCORES	LOCAL Z-SCORES	LOCAL NCE
25	-1.42	20
57	-0.31	43
30	-0.95	30
39	-0.77	34
50	-0.12	47
31	-1.42	20
25	-0.95	30
28	-1.33	22
53	-0.31	43
54	-0.77	34
43	0.53	61
30	-0.49	40
36	-0.95	30
40	0.16	53

Discussions, Conclusions, and Recommendations

Results of this study provide evidence that the remediation program at Chauncey Rose Middle School had little effect on the mean scores of the local exam post-test. But this study did conclude that the mean scores of both the ISTEP and local test were related.

One conclusion of this study is that remediation should start earlier in the education of low essential skills students. Pull-out programs, after school programs, and summer school, should be a part of the essential skills learning of the at-risk student in the early years after ISTEP scores are received in the third grade.

The remediation programs at Chauncey Rose Middle School, and the other schools in the Vigo County School Corporation, are no longer running.

Lack of funds and teacher reductions have made it hard for the programs to exist. Enrichment and remediation activities during the TBG period are starting again at Chauncey Rose for all seventh grade students in Language Arts and Mathematics.

The enrichment activities in seventh grade will give all students remediation in Language Arts. A post-test is planned to be administered in the Spring of 1998 to determine the results of the enrichment and the curriculum of seventh grade Language Arts and Mathematics. Scores from the local seventh grade exam and the post-test will used for enrichment and remediation activities for the students entering eighth grade.

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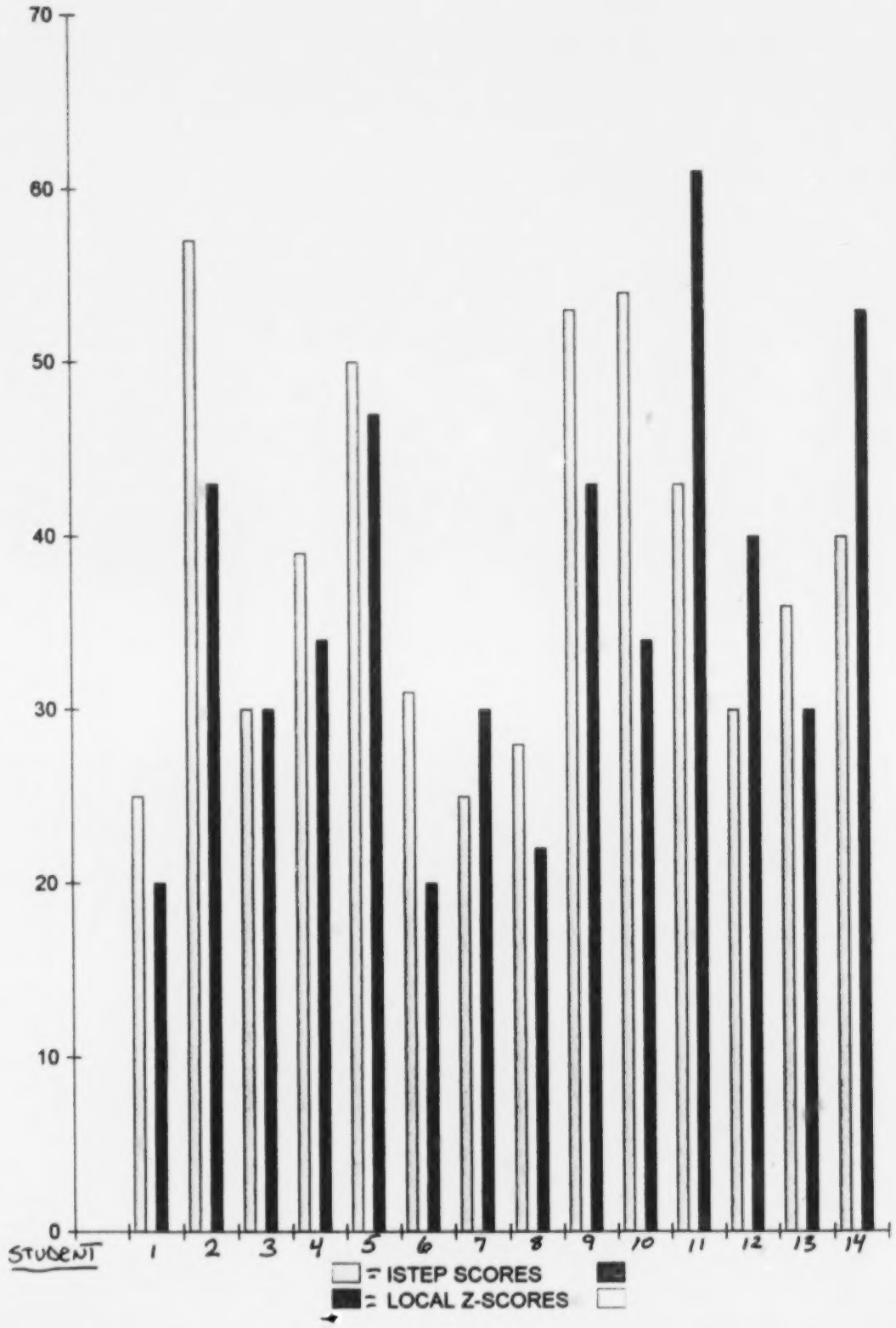
APPENDIX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STUDENT
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= ISTEP SCORES
= LOCAL Z-SCORES